

**Pregnancy****What risk does West Nile virus (WNV) illness during pregnancy present to an unborn child?**

Based on the limited number of cases studied so far, it is not yet possible to determine what percentage of WNV infections during pregnancy result in infection of the unborn child or medical problems in newborns.

In 2002, one case of mother-to-child transmission of WNV was reported to the Centers for Disease Control and Prevention (CDC). In this case, the infant was born with WNV infection and severe medical problems. It is unclear, however, whether WNV infection caused these problems or whether they were due to other causes.

What are states doing to gather additional information?

After the report of this case, the CDC, state and local health departments formed a registry to follow the pregnancies of women who have WNV illness.

What should I do?

Pregnant women who think they may have become infected with WNV should contact their private health-care providers. Clinicians who are aware of WNV infections of pregnant women are encouraged to report such cases by calling their state health department.

How do I avoid getting WNV?

Pregnant women should take precautions to reduce their risk for WNV and other mosquito-borne infections. This can be done by avoiding mosquitoes, using protective clothing and using EPA registered repellents. The CDC recommends repellents with DEET or picaridin on skin and clothing. Oil of lemon eucalyptus is another option, but is not as long-lasting.

Are infants at higher risk than other groups for illness with WNV?

No. WNV illnesses in children younger than age 1 are infrequent. Since 1999 only 18 of the 15,401 cases reported to the CDC were in children younger than one year of age.

Breast-Feeding**Can WNV be transmitted through breast milk?**

Based on a 2002 case in Michigan, it appears that WNV can be transmitted through breast milk. A new mother in Michigan contracted WNV from a blood transfusion shortly after giving birth. Laboratory analysis showed evidence of WNV in her breast milk. She breast-fed her infant, and three weeks later, her baby's blood tested positive for WNV. Because of the infant's minimal outdoor exposure, it is unlikely that infection was acquired from a mosquito. The infant was most likely infected through breast milk. The child was healthy and does not have symptoms of WNV infection.

If I am pregnant or breast-feeding, should I use insect repellent containing DEET or picaridin?

Yes. Insect repellents help people reduce their exposure to mosquito bites that may carry potentially serious viruses such as WNV, and allow them to continue to play and work outdoors. There are no reported adverse events following use of repellents containing DEET or picaridin in pregnant or breast-feeding women.

Should I continue breast-feeding if I am symptomatic for WNV?

Because the health benefits of breast-feeding are well established and the risk for WNV transmission through breast-feeding is unknown, the new findings do not suggest a change in breast-feeding recommendations. Lactating women who are ill or who are having difficulty breast-feeding for any reason, as always, should consult their doctor.

Should I continue breast-feeding if I live in an area of WNV transmission?

Yes. Because the health benefits of breast-feeding are well established and the risk for WNV transmission through breast-feeding is unknown, the new findings do not suggest a change in breast-feeding recommendations.

If I am breast-feeding, should I be tested for WNV?

No. There is no need to be tested just because you are breast-feeding.

Additional Information:

Is available at www.ndhealth.gov/wnv or by calling the North Dakota Department of Health at 800.472.2180.

Information for Clinicians:

CDC website at www.cdc.gov/ncidod/dvbid/westnile/DuringPregnancy/WNV_duringPregnancy.htm

Additional clinical information on WNV during pregnancy can be found in these recent publications:

O'Leary et al. Outcomes Following West Nile Virus Infection of Pregnant Women, United States, 2003- 2004. *Pediatrics* 2006; 117(3): e537-45.

Paisley et al. West Nile Virus Infection among Pregnant Women in a Northern Colorado Community, 2003-2004. *Pediatrics* 2006; 117(3): 814-20.

Hayes EB and O'Leary DR. West Nile virus infection: a pediatric perspective. *Pediatrics*. 5 May 2004; 113(5): 1375-1381.

Alpert SG, Ferguson J, Noel LP. Intrauterine West Nile virus: ocular and systemic findings. *Am J Ophthalmol*. 2003 Oct;136(4):733-5.

Chapa et al. West Nile Virus Encephalitis During Pregnancy. *Obstetrics and Gynecology*. 2003 Aug; 102(2):229-231.

WNV registry website at www.westnilepregnancy.net/

History of WNV and pregnancy is available at www.cdc.gov/ncidod/dvbid/westnile/qa/breastfeeding.htm or see MMWR Dec 20, 2002 publication.

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